2C210

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Response to Comments
OU 7 Seep Collection and Storage Facility
Design Plans and Specifications
The S M Stoller Corporation
December 21, 1994

EG&G COMMENTS

1 0 Jeff Fauble (966-5609), November 29, 1994

1 1 Comment

Dwg - 102 Consider adding leak detection to secondary containment in the sump Send signal to tank area This would save a lot of inspection problems during bad weather

Response

Leak detection has been added, see Dwg - 102

1 2 Comment

Dwg - 103 Consider extending the concrete pad under the truck loading connection This will allow more time for the operator to contain small spills

Response

Extended concrete pad by 3 ft

1 3 Comment

Show locator tape on Detail 2

Response

Locator tape shown on plans, Detail 2 on sheet 4

1 4 Comment

Dwg - 104 Single contained threaded joints are not allowed in RCRA systems Change all single contained threaded joints to flanged

Response

All threaded outer joint connections to the tanks have been changed to flange connections Joints within the tank are still threaded

1 5 Comment

Valve box is not listed as being pressure rated It could see about 10 psi

Response

Plans and specifications now indicate that the joints and seals of the secondary containment boxes for the valves must be capable of withstanding an internal pressure of 10 psi

1 6 Comment

On Detail 4, a 1/4 inch weld is specified to weld 10 gage sheet Can't be done Also weld symbols are incorrect

Response

Weld for 10 gage sheet is now specified as a 1/8 inch weld Weld symbols have been corrected

1 7 Comment

Dwg - 104 The gaskets on the bulkhead fittings are the same material as the tank As specified, they won't seal properly Either specify a durometer rating or specify a softer gasket such as EPDM or Viton

Response

There is no durometer rating for the gasket, however the material is not the same as the hard tank material the question is addressing I will have a sample of the gasket sent to Mr Fauble for his inspection

1 8 Comment

Dwg - 106, P&ID Specify on and off levels for the pump Specify levels for the tank alarm points List key features of process equipment at the top of the P&ID

Response

P&ID drawing was modified to include pump on and off levels, tank alarm levels and list key features of process equipment

2 0 Tom M Lindsay (966-6985), December, 1994

2 1 Comment

Section 2 1 1 Earthwork, last sentence state the unsuitable material shall be disposed at the existing adjacent landfill

Response

Added statement

2 2 Comment

Section 3 1 6 6 Earthwork, change notice from 24 hrs to 48 hrs

Response

Added statement

2 3 Comment

Section 3 1 7 Earthwork, add the requirement, "Subcontractor shall comply with OSHA 29 CFR 1910 146, confined space entry and EG&G H&S Manual section 6 04

Response

Added statement

2 4 Comment

Section 3 7 3 Earthwork, last sentence, all testing shall be performed by the Subcontactor Reference section 1 6

Response

Added statement

2 5 Comment

Section 3 7 5 Earthwork, Remove "Contractor and testing agency"

Response

Removed statement

2 6 Comment

Section 3 10 1 and 3 10 2 Earthwork, State that this material may be disposed in the existing adjacent landfill

Response

Added statement

2 7 Comment

Consider combining sections 2200 Earthwork and 2220 Excavation, Trenching, Backfill, and Compaction as one section

Response

Retained section 2200 Earthwork and deleted section 2220, but retained some of the trenching specifications of section 2220 and added the sections to the Earthwork specifications

2 8 Comment

Four comments pertaining to section 2220

Response

Comments not addressed because section 2220 was deleted

2 9 Comment

Section 1 3 Aggregate Base Course, Testing shall be done by Subcontractor

Response

Added statement

2 10 Comment

Section 3100 Concrete Formwork, Remove sentence 1 5 1, requirement of registered P E

Response

Removed sentence

2 11 Comment

Section 3200 Concrete Reinforcement, Remove sentence 1 5 1, requirement of registered P E

Response

Removed sentence

2 12 Comment

Section 5500 Metal Fabrications, Remove sentences 1 1 2, 1 1 3, and section 3 5 Schedule

Response

Removed sentences and section

2 13 Comment

Section 13200, Seep Storage Tanks, Change sentence 1 4 2 from 7 yr to 15 yr warranty

Response

Warranty period was not changed The tank manufacture representative said, to increase the warranty period to 15 years the tank prices would increase to add more safety factors into the design However we can discuss the warranty period further to decide if the increase in cost is worth the increased warranty period

3 0 AMPME/ED and ERPT, (966-7365 and 966-5611), December 1994

3 1 Comment

On drawing 51267-102 in detail #1, assure that all items are completely described as regards size, material, end connection type, etc

Response

All items are described completely Any items not thoroughly described are identified in the specifications

3 2 Comment

On drawing 51267-105, correct bill of material as discussed in design review meeting Make the references to details on the rain skirt consistent between Detail 7 and Detail 8

Response

Corrections have been made

3 3 Comment

In the technical specification sections as noted

1 In section 3300 (cast in place concrete) in para 2 1, the cement is specified as ASTM C150 type I Due to the sulfate content of the indigenous soils at Rocky Flats, type V or Type II modified cement is recommended

2 In section 3300 (cast in place concrete) in para 2 5 3, the compressive strength requirement is 4,000 to 5,000 psi Would not standard 3,000 psi concrete be sufficient?

3 In section 13215 (piping) in para 2 2 9, a para needs to be added to address the stainless steel valves that are incorporated into the design

Response

1 Change has been incorporated

2 Changed concrete spec to 3,000 psi concrete

3 No stainless steel values

3 4 Comment

Throughout the drawings and specifications, the word "leachate" should be replaced by "seep," "seepage" or "seep water," as appropriate to the context

Response

We have changed all of the "leachate" words we could find in the specifications and plans to "seep"

3 5 Comment

Can structural damage occur to the double wall force main and associated fittings in the seep collection sump due to heat tape and/or solar heating of the above-ground portions of the pipeline? Specifically, stresses on the piping and appurtenances caused by elongation with heating should be examined and calculations presented

Response

The manufacturer of the heat tape has indicated that they have many similar installations with heat tape on polypropylene pipe and there has never been a problem with melting pipe In addition, the heat tape is self limiting

3 6 Comment

The selection of new, custom-designed tanks must be justified on a cost-effectiveness basis vs 1) pre-engineered, double-walled tanks, and 2) using extra existing tanks procured by the OU 4 project

Response

We agreed at the design review meeting that the double-walled tanks were the appropriate selection for this project

3 7 Comment

EG&G must address the overall project life and life-cycle costs of the long-term portion of the design, the seepage - 1) suppliers/contractors warranty period, 2) repair/replacement scenario for the unwarranted portion of the project life, especially for key containment features like the primary tank shells, outer containment shells and rain skirts, and 3) life-cycle costs and responsibility for those repair or replacement costs necessary to maintain the fully-functional facility over the project life

Response

It is Stoller's understanding that EG&G is looking at life-cycle costs

4 0 Health and Safety Design Review, K R Farley, 966-5043, November 30, 1994

4 1 Comment

Ref HSP Manual in its entirety, esp 2 8 lockout/tagout, 12 08 Excavation and trenching, 6 04 contained space, etc

Response

The HSP manual is referenced in the technical specifications and will be referenced in its entirety in the contract documents and general specifications

4 2 Comment

Section 13210 pumps, 480v submersible ½ hp? Needs magnetic starter

Response

Submersible pump is 480v, ½ hp with magnetic starters

4 3 Comment

Section 13215 piping (3 4) shows hydro of double contained PVC pipe, with visual inspection for leakage, and no check of pressure or make-up water How will you test double wall pipe? Leakage may be slow enough that it won't run out of secondary containment in 3 hours

Response

A leak detection sensor for the piping system has been incorporated into the design

4 4 Comment

Section 13215 piping (3 5 2), if you're not flushing secondary containment pipe, to keep it dry, how will you leak test it? 3 4 4 only talks of hydro and doesn't specifically exempt secondary containment pipe from this test

Response

A leak detection sensor for the double contained piping has been incorporated into the design. Secondary containment piping will also be tested

4 5 Comment

Section 16050 Electrical (pages 2–10) nameplates and labels--ref SX-164 for specifics

Response

Stoller assumes the nameplates and labels SX-164 will be referenced in the contract documents and general specifications

4 6 Comment

Sheet 104, Detail 4, and sheet 105, Detail 7, Anchor embedment depth?
Sheet 108, Nameplate Legend Add label inside of PM in clear view warning of multiple PWR sources--pump control, panel PWR, Heat trace PWR (Normally use red engraved phenolic tag)

Response

Anchor embedment depths are identified Did not add labels inside P M

4 7 Comment

Section 13126 (2 2 7) specs show 120v heat tracing
Sheet 107 shows wiring for 208v heat tracing Inconsistent

Response

Heat tracing power is 208v/120v

4 8 Comment

Sheet 102 Detail 1, shows tracing spiral wrapped If this is needed to get required watts/ft, specify pitch

Response

Required pitch will be determined from manufacturer's recommendations

4 9 Comment

Sheet 106, C006 conduit, upsize grounds to #10 also, or run 1 larger ground Ref NEC 250-95 which requires upsizing grounds proportionately, when PWR conductors are upsized to lower voltage drop

Response

The grounds have been upsized to #10

4 10 Comment

Sheet 102, Section A-A piping anchored to wood, or wood to ground? Suggest driving metal fence posts along pipeline to mark it, so nobody trips over it or drives over it when covered by snow

Response

The wood blocks shown are to support pipe above ground The wood is neither connected to the pipe or ground, simply used for pipe support There is hardly no car or truck traffic in the particular area, no fence posts installed

4 11 Comment

Sheet 103, Detail 2, show warning tape

Response

Warning tape is identified on plans

4 12 Comment

Sheet 107, Floodlight control, control XFMR is 208 120v, Not 480 120

Response

Has been changed to 480 120

4 13 Comment

Sheet 109, where is (B/10)? (Section showing floodlight location?)

Response

Drawing has been changed

4 14 Comment

Sheet 102, Detail #1, if there was a leak in double contained pipe, into 3" secondary containment, the secondary could become pressurized, since no vent is present at valvebox Wouldn't addition of a vent lesson chances of an external leak?

Response

A vent has been added to the leak detection system